

Document Readers

Awards
Active

Funding Recommendation Package

Budget Information

Non-Construction Programs

Title: Duke University->

Funding Rec Budget Information Page: 1

Document Status

Current Editor: Nigel Fields
Delegate: William Stelz

Last Modified: 07/11/2009

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		TOTAL (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. R 833293	66 500	\$3,094,908	\$	\$	\$	\$3,094,908
2.		\$	\$	\$	\$	\$0
3.		\$	\$	\$	\$	\$0
4.		\$	\$	\$	\$	\$0
5. TOTALS		\$3,094,908	\$0	\$0	\$0	\$3,094,908
Grant Program, Function or Activity Title: Southern CTR for Environmentally-Driven Disparities in Birth Outcomes						
6. Object Class Categories	(1) Year 1	(2) Year 2	(3)	(4)	TOTAL (5)	
a. Personnel	(b) (4)		\$	\$	(b) (4)	
b. Fringe Benefits			\$	\$		
c. Travel			\$	\$		
d. Equipment			\$	\$		
e. Supplies			\$	\$		
f. Contractual			\$	\$		
g. Construction			(b) (4)	\$		
h. Other			\$	\$		
i. Total Direct Charges (sum of 6a - 6h)			\$0	\$0		
j. Indirect Charges			\$	\$		
k. TOTALS (sum of 6i and 6j) (Cost Share Recipient: Federal:)	\$1,543,588	\$1,551,320	\$0	\$0	\$3,094,908	
l. Total Approved Assistant Amount	\$	\$	\$	\$	0	
7. Program Income	\$	\$	\$	\$	\$0	
Attachments:						

Origination Information

1250
1251/2501 -

"Other" Section Included 1,250 return each yr in yr 1 + 2.

Principal Investigator/Program Director (Last, First, Middle): **Miranda, Marie L.**

**BUDGET FOR ENTIRE PROPOSED PROJECT PERIOD
DIRECT COSTS ONLY**

Composite

BUDGET CATEGORY TOTALS		INITIAL BUDGET PERIOD (from Form Page 4)	ADDITIONAL YEARS OF SUPPORT REQUESTED			
			2nd	3rd	4th	5th
PERSONNEL: Salary and fringe benefits. Applicant organization only.			(b) (4)			
CONSULTANT COSTS						
EQUIPMENT						
SUPPLIES						
TRAVEL						
PATIENT CARE COSTS	INPATIENT					
	OUTPATIENT					
ALTERATIONS AND RENOVATIONS						
OTHER EXPENSES						
CONSORTIUM/ CONTRACTUAL COSTS	DIRECT					
SUBTOTAL DIRECT COSTS (Sum = Item 8a, Face Page)		991,857 995,357	993,634 994,634	1,004,637 999,637	968,933 989,433	982,860
CONSORTIUM/ CONTRACTUAL COSTS	F&A	991,857 0	993,634 0	1,004,637 0	968,933 0	0
TOTAL DIRECT COSTS		995,357	994,634	999,637	989,433	982,860
TOTAL DIRECT COSTS FOR ENTIRE PROPOSED PROJECT PERIOD						\$ 4,961,921
SBIR/STTR Only Fee Requested						
SBIR/STTR Only: Total Fee Requested for Entire Proposed Project Period (Add Total Fee amount to "Total direct costs for entire proposed project period" above and Total F&A/indirect costs from Checklist Form Page, and enter these as "Costs Requested for Proposed Period of Support on Face Page, Item 8b.)						\$

JUSTIFICATION. Follow the budget justification instructions exactly. Use continuation pages as needed.

Document Readers



EPA Funding Recommendation

Title: Duke University

<< Link to pre 12/13/06 formatted FR.

Document Status

Document Phase: **Final**

Last Modified: 10/07/2011

Current Editor: Nigel Fields

Previous Editor: Lek Kadel

Delegate: William Stelz

Section A - Project Information

Section B - Project Justification and Environmental Results

B.1. Is the principle purpose of this award to transfer anything of value to the recipient to support or stimulate a public purpose authorized by an EPA grant making statute in accordance with the Federal Grant and Cooperative Agreement Act? (The purpose of the award must not be to acquire goods or services for the direct use and benefit of the Federal Government.) (See the "Policy for Distinguishing Between Assistance and Acquisition", EPA Order 5700.1.) Yes

B.1.a. Describe the specific project activities and how they will further the recipient's own efforts to protect the environment. EPA will not award a grant unless the funding recommendation is based on criteria stated in EPA Order 5700.1.

The proposed research has the potential to identify maternal characteristics that interact with environmental, social, and host factors to increase risk of adverse birth outcomes. The Center's research has the potential to provide the scientific and clinical communities with important new knowledge regarding mechanisms of adverse pregnancy outcomes, knowledge that could be applied to develop more effective means of prevention and treatment. The ability to identify persons at high risk could lead to prevention programs that reduce risk, prevent disease, and improve health and well being among women and their children. Immediate beneficiaries of this research include the residents of North Carolina who will be the subject of this research. It is hoped that the analyses developed under this research can be applied to high risk populations in other parts of the U.S.

B.1.b. Is this a cooperative agreement?

No

B.2. Does the scope of the work involve conducting any conferences or workshops?

Yes

B.2.a. Who is initiating the conference/workshop/meeting?

Duke University

B.2.b. How is the conference/workshop/meeting being advertised?

The training conferences will be targeted to specific partners, such as the Duke Nursing School and the local health department. Advertising will be through posted flyers, direct invitations and through the SCEDDBO website.

B.2.c. Whose logo will be on the agenda and conference/workshop/meeting materials?

Duke University and the SCEDDBO

B.2.d. What is the percentage distribution of the persons attending the conference/workshop/meeting (i.e. percent federal government, public participants, state and locals)?

100% local students and health department staff in training

B.2.e. Is the recipient going to prepare the proceedings or analysis and disseminate this information back to the appropriate (state/local/scientific) community?

Yes

B.2.f. Do you anticipate any program income being generated from this conference/workshop/meeting, including registration fees?

No

B.2.g. Based on the above, an assistance agreement is the appropriate instrument for funding this activity since the financial assistance is to support a public purpose rather than for EPA's direct use or benefit and the recipient expects to control the planning and agenda or will share these responsibilities with EPA as a cosponsor. (See chapter 3 and chapter 4 of GPI-98-11, Best Practices for Conferences).

Yes

B.2.h. Attach or enter other conference information, if any.

B.3. Describe how the project relates to the statutory authority.

Clean Air Act--Section 103.

Section 103 of the Clean Air Act authorizes the EPA to make grants to institutions for research, investigations, experiments, demonstrations, surveys and studies relating to the causes, effects (including health and welfare effects), extent, prevention and control of air pollution.

Safe Drinking Water Act--Section 1442.

Section 1442 of the Safe Drinking Water Act authorizes the EPA to make grants for research, training, studies, and

demonstrations relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and other impairments of man resulting directly or indirectly from contaminants in water, or to the provision of a dependably safe supply of drinking water, including (A) improved methods: (i) to identify and measure the existence of contaminants in drinking water (including methods which may be used by State and local health and water officials), and (ii) to identify the source of such contaminants; (B) improved methods to identify and measure the health effects of contaminants in drinking water; (C) new methods of treating raw water to prepare it for drinking, so as to improve the efficiency of water treatment and to remove contaminants from water; (D) improved methods for providing a dependably safe supply of drinking water, including improvements in water purification and distribution, and methods of assessing the health related hazards of drinking water; and (E) improved methods of protecting underground water sources of public water systems from contamination

Clean Water Act--Section 104.

Section 104 of the Clean Water Act authorizes the EPA to make grants to institutions for research, investigations, experiments, training, demonstrations, surveys and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution.

The central objective of the Center's research is to explain birth outcome disparities by determining how the cumulative interactions of air pollution, drinking water pollution, genetic factors, social stress, and other host factors impact pregnant women and the developing fetus. The Center aims to: (1) develop and operate an interdisciplinary research program focused on the biological, physiological, environmental, and social aspects of vulnerability; (2) develop a new methodology for incorporating innovative statistical analysis into children's health research; and (3) translate the results of the Center's research in a format that may be used by the public in interventions and clinical care. The investigators will employ an innovative statistical model which will integrate cumulative exposures from air and water pollution to examine how environmental, social and host factors synergize to shape child health.

B.3.a. Is this assistance agreement a Congressional earmark project to a specific recipient? No

B.4. Expected Environmental Results: The Program Results Codes (PRC) of the funds that will be used for this assistance agreement.

PRC	AMOUNT	PROGRAM/PROJECT	ALLOCATION %
405FB2D	3,094,908	B2 - Research: Human Health & Ecosystems	100

Total Amount: \$ 3,094,908

This project supports the following goals, objectives, and subobjectives.

GOAL	OBJECTIVE	SUBOBJECTIVE
4 - Healthy Communities and Ecosystems	4.4 - Enhance Science and Research	4.4.2 - Conduct Relevant Research

B.4.a. Does this assistance agreement result from a solicitation issued before January 1, 2005? No

B.4.b. Has your office obtained a waiver from the requirements of Environmental Results under Assistance Agreements, EPA Order 5700.7 under Section 15? No

B.4.c. The National Center for Environmental Research in the ORD - Office of Research and Development has reviewed the work plan. The Office has determined that it contains well-defined outputs and, to the maximum extent practice, well-defined outcomes or that the award is a State or Tribal assistance agreement under 40 CFR Part 35, Subparts A or B that complies with 40 CFR 35.107 (State and local government work plans) or 35.507 (Tribal work plans). See EPA Order 5700.7 Sections 7.a. and 8.b. Yes

Enter Terms and Conditions on results based on recipient type and program code.

B.4.d. Describe how this project fits within the Agency's Strategic Plan/Government Performance and Results Act architecture. The description must identify all EPA strategic goals, objective, and where available, subobjectives listed under Section B.4 consistent with the appropriate Program Results Codes. (See EPA Order 5700.7, Section 8.)

This project supports Goal 4 (Healthy Communities and Ecosystems), Objective 4.4 (Enhance Science and Research), Sub-objective 4.4.2 (Conduct Relevant Research) of EPA's Strategic Plan. Adverse birth outcomes exhibit disparities across subpopulations. Although it is widely agreed that birth outcomes are determined by multiple forces, surprisingly little is known about the interaction of those forces and how those forces jointly drive health disparities. Elevated environmental exposures often occur in communities facing multiple social stressors, which may compound the effects of environmental exposures. This phenomenon is especially severe for low income and minority pregnant mothers, with significant health implications for the fetuses they carry. In addition, despite the growing importance placed on gene environment interactions, little is known about how genetic and environmental factors combine differentially to promote or prevent adverse birth outcomes across subpopulations. Consistent with Goal 4, this research will help determine how environmental, social, and host factors jointly drive health disparities in birth outcomes. This research will help better identify and understand the processes that affect human health and the environment, and enhance evaluation of the risks that pollution poses to humans and ecosystems. The work proposed by Duke will further clarify the role of socioeconomic and environmental factors on developmental outcomes in both fetuses and neonates.

B.4.e. Attach a program specific term and condition approved by the Director, Office of Grants and Debarment, which requires recipient reporting or attach a reporting term and condition in accordance with Appendix B to EPA Order 5700.7.

See section F. below.

B.5. Quality Assurance: Does this program or project include generation of environmental data, or use of existing environmental data?	Yes
B.5.a. Are the proposed measurement activities covered by an existing or draft Quality Management Plan (QMP), or Quality Assurance Project Plan (QAPP)?	Yes
B.5.b. Are the QA Plans or QA documents required for this assistance award approved?	Yes
B.5.b.1. Are there new or additional environmental measurement activities anticipated which are not covered by the existing approved QMP or QAPP?	No
B.6. Is the recipient of this assistance award a non-profit organization?	No
B.7. Will the assistance award result in the development of any copyrighted software or written materials?	No
B.8. Is this a small grant as defined by the Small Grant Policy?	No
B.9. Is this a Research Assistance Agreement?	Yes

B.9.a. Research assistance agreements require two extramural and one intramural reviews. Provide a summary or attach the required reviews.



Panel Statement_miranda.pdf Duke NCER Internal Review Summary.doc

B.9.b. Enter response to contrary reviews.



Response_Miranda.pdf

B.9.c. Is this an unsolicited Research Proposal?	No
B.10. Could an invention result from this project?	No
B.11. Does the project involve human subjects?	Yes
B.11.a. Human Subject's Review Official's Name:	Dr. Warren Lux
B.11.b. Human Subject's Review Official's Title:	EPA Human Subjects Research Review Official
B.11.c. Human Subject's Review Official's date of approval:	02/22/2006
B.12. Does the project involve animal subjects?	Yes
Enter appropriate Terms and Conditions in Section F.	
B.13. Is this a cooperative agreement which will include the survey or collection of identical information from 10 or more persons, or a grant which will include the survey or collection of identical information from 10 or more persons and under which EPA influenced the design, development or implementation of the survey? (See Grants Policy Issuance 99-1, Information Collection Requirements)	No
B.14. Does the proposal include projects that will be performed entirely or in part outside of the United States?	No
B.15. Does the grant involve or relate to geospatial information?	Yes
Geospatial information includes: "Information that identifies the geographic location and characteristics of natural or constructed features or boundaries on the Earth, or applications, tools, and hardware associated with the generation, maintenance, or distribution of such information. The information may be derived from, among other things, GPS, remote sensing, mapping, charting, and surveying technologies, or statistical data."	
B.16. Will this assistance agreement require individuals to access federally controlled facilities or have access to federally controlled computer systems at least 24 hours a week for a 6 month period or more?	No

Section C - Competition, EPA Order 5700.5A1

C.1. Was the award made through a competitive process?	Yes
C.2. What type of competitive process was used?	Open Competition

C.2.a. Announcement number or other identifier for the announcement:

RFA-(ES05-004)

C.2.b. Date the announcement was issued, released, or posted:

10/11/2005

C.2.c. Include an attachment documenting the rationale for the selection of the recipient for an award as required under Section 9.f of the Competition Policy (EPA Order 5700.5A1).

Miranda Competition Rationale (3).doc

C.3. Competition code:

C

Section D - Project Funding

Approved Budget	
Cost Category Classification (Nonconstruction)	Approved Allowable Budget Period Cost
D.1. Personnel	(b) (4)
D.2. Fringe Benefits	
D.3. Travel	
D.4. Equipment	
D.5. Supplies	
D.6. Contractual	
D.7. Construction	
D.8. Other	
D.9. Total Direct Costs	
D.10. Indirect Costs IDC Rate % Base \$	
D.11. Total	\$3,094,908
D.12. Total Requested Amount	\$7,735,620
D.13. Total Request To Fund Amt This Action	\$3,094,908
D.14. Is this funding full or partial (incremental)?	Full

Section E - Project Funding Information**E.1. Based on a cost review analysis, all costs are necessary and reasonable in accordance with the Cost Review Guidance (GPI-00-05)**

Yes

E.1.a. Enter or attach Cost Review Analysis.

Miranda Cost Review (2).wpd

E.2. Does this project include preaward costs?

Yes

E.2.a. Were any of the costs incurred more than 90 days before award?

Yes

E.2.b. Enter or attach justification for allowing costs incurred more than 90 days before award..

Approval of pre-award costs is recommended. This competitive award allows for the full funding and increased enrollment of a pregnancy birth cohort established by the investigator's pilot project as a part of the Center for Geospatial Medicine (CGM). The CGM is an exploratory NIH grant which ends this year. The investigators have maintained the cohort with the support of the Duke University Provost in order to meet their enrollment and data collection goals as outlined in the SCEDDBO proposal. Thus continuing work involving the human subjects could not be delayed. A start date of December 1, 2006 is recommended.

E.3. Will this assistance agreement be funded with funds from more than one appropriation?

No

E.4. Does the funding for this action include any EPA In-Kind Contribution?

No

E.5. Is the recipient providing cost sharing under this agreement?

No

E.6. Does this action include approval to carry forward obligated funds from prior years?

No

E.7. Is this project expected to generate program income?

No

E.8. Will equipment be acquired under this assistance agreement? No
(See 40 CFR 30.34 or 31.32, as appropriate, and Grants Policy Issuance 02-02.)

Section F - Terms and Conditions

F.1. Insert Appropriate Terms and Conditions.

Please enter Terms and Conditions applicable to animal subjects

Please enter Terms and Conditions for Project Officer approval



Duke IGMS final generic center terms and conditions (1).doc

Section G - Project Officer Approval

G.1 Project Officer Approval. I have reviewed and approved the work plan/scope of work and budget for this project and I recommend the Award. Yes with Conditions

G.1a. Address: 1200 Pennsylvania Ave, NW

G.1.b. City: Washington

G.1.c. State: DC

G.1.d. Zip Code: 20460

G.2. Is this a non-competitive award or out-of-scope monetary increase amendment that requires the Assistant Administrator or Regional Administrator's certification under the Administrator's April 5, 2005 Memorandum on the Review and Announcement of Discretionary Grants? No

G.3. Does this Funding Recommendation require approval of the Senior Resources Official? Yes

Section H - Commitment Clerk

H.1. Funding Regions: EPA HQ

Section I - Concurrences and Approvals

I. AO/SRO Region: EPA HQ

I.1. Approval Official Concurrence

I.1.a. Approval Official: Jack Puzak

I.1.b. Title:

I.1.c. Phone: 202-564-6700

I.1.d. Delegate:

I.1.e. Title:

I.1.f. Phone:

Approval Official Concurrence:

I.2. Senior Resource Official Signature

I.2.a. Senior Res. Official: Lek Kadeli

I.2.b. Title:

I.2.c. Phone: 202-564-6696

I.2.d. Delegate: Jack Puzak

I.2.e. Title:

I.2.f. Phone:

Senior Resource Official Signature: - Signed by Jack Puzak/DC/USEPA/US on 03/15/2007 09:49:20 AM, according to /USEPA/US

Section J - Review & Approvals

J.1. Read Access: Controlled

J.2. Readers: Linda Bishop
Monica Brooks
Richard Callan
Nigel Fields
Roberto Perez
Jack Puzak
Jennifer Robbins
William Stelz

J.3. Submitted:

J.5. Concurrent
Approvers:

J.6. Submitted:

J.7. Due Date:

Concurrent Approval Responses		
Response	Concurrence By	Date

J.8. Sequential
Approvers: 1. Becki Clark
2. Paul Palm
3. Holly Ferguson
4. Roberto Perez
5. William Stelz
6. Mark Thomas

J.9. Submitted: 11/27/2006
12/11/2006
03/08/2007
03/08/2007

J.10. Due Date: 03/16/2007

Sequential Approval Responses		
Response	Concurrence By	Date
Approved	Roberto Perez	03/08/2007
Approved	Holly Ferguson	12/11/2006
Approved	Paul Palm	11/28/2006
Approved	Becki Clark	11/28/2006
Approved	William Stelz	03/08/2007
Approved	Mark Thomas	03/08/2007

Section K - Commitment Notices

Section L - Grant Specialist

L.1. Grant Specialist: LaShaun Phillips

L.2. Title:

L.3. Phone: 202-564-0956

L.4. Submitted: 03/15/2007

Section M - Funding Recommendations Attachments

Section N - Origination Information

Section O - Notifications History

Requirements for Obtaining Office of International and Tribal Affairs (OITA) Prior Approval of Foreign Projects

As used here, foreign projects include grants, cooperative agreements, fellowships and Interagency agreements all or any part of which will be performed in a foreign country by (a) a U.S. recipient, (b) a foreign recipient, or (c) an international organization. Please note that foreign work includes travel of individuals to foreign countries under assistance agreements. Even a brief trip to a foreign country, for example to attend a conference, by itself requires OITA approval.

If the project includes foreign work, the funding recommendation should indicate that the proposal includes projects that will be performed entirely or in part outside of the United States. In addition, the funding recommendation should indicate the date when the request for approval of foreign work was submitted to OITA. OITA approval should be requested via email to one of the OITA contacts listed below as soon as the program office's management approves the funding. Obtaining OITA approval of foreign work prior to submission of the funding recommendation significantly reduces the processing time of awards.

OITA will notify the project officer when foreign work is approved, preferably in time to be included in the funding recommendation. If the funding recommendation has already been submitted to the Grants and Interagency Agreement Management Division when OITA's approval is obtained, the project officer should attach the OITA approval to the IGMS funding recommendation as a comment and notify the grants specialist. (Since fellowship funding recommendations are not submitted in IGMS, OITA approval of foreign work in fellowships should be submitted with the paper funding recommendation, or should be forwarded to the grants specialist as soon as possible if they are not available at the time the funding recommendation is submitted.)

The documentation required by OITA in order to approve foreign work is as follows.

Grants, Cooperative Agreements and Interagency Agreements:

1. Project ID Number if available
2. Name of recipient or name of other Federal agency
3. EPA project officer contact information
4. Project title and description
5. Budget and project periods
6. Project narrative/proposal
7. Itemized budget (include total project cost and international travel cost along with number of trips and dates of travel if known)
8. Country where foreign travel/work is taking place
9. Statutory authorities
10. Agency strategic goal(s)
11. Program results code(s)
12. Signed IGMS funding recommendation or other documentation confirming approval by the program office. OITA needs a document signed by the program office's management supporting the proposed funding action before they can provide clearance. If a funding recommendation has already been approved, it can be used to satisfy this requirement. For grants and cooperative agreements, the project officer may instead provide the AA certification for noncompetitive awards or the AA certification for the RFA on competitive awards.

Fellowships:

1. Project ID number if available
2. Project officer contact information
3. Proposed dates of trip
4. Destination
5. Purpose of trip
6. Abstract/narrative
7. Permits (if so, a copy is needed)
8. In country contact
9. Budget and project period dates
10. Program results code(s)
11. Agency goal
12. Statutory authority
13. EPA total project cost
14. EPA total travel cost
15. Signed funding recommendation or AA certification. See Item #11 above under grants and cooperative agreements.

OITA Contacts for Approval of Foreign Projects

Iris Zeigler (202) 564-6614
Paul Trevino (202) 564-1627

Received 2/28/12 (llc)



THE UNIVERSITY OF MICHIGAN
DIVISION OF RESEARCH DEVELOPMENT AND ADMINISTRATION
www.drda.umich.edu

3003 South State Street
Ann Arbor, MI 48109-1274

The enclosed proposal, **DRDA No. 12-PAF01535** submitted on behalf of **Dr. Marie Lynn Miranda** has been approved on behalf of the REGENTS OF THE UNIVERSITY OF MICHIGAN by the appropriate University official.

Please direct all administrative questions, and copies of all correspondence, to:

Anthony L. Nielsen
Assistant Project Representative
University of Michigan
Office of Research and Sponsored Projects
3003 S. State St., Rm. 1070
Ann Arbor, MI 48109-1274
Phone: 734 647-3263
Fax: 734 763-4053
anielsen@umich.edu

If you wish to fund this project please contact me to confirm your intention and to determine the most efficient manner to establish a commitment regarding your support.

Attention and to determine the most efficient manner to establish a commitment regarding your support.

Thank you for your consideration. We look forward to working with you.

Sincerely,

(b) (6)

Anthony L. Nielsen

Scope of Work

Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO)

Dr. Marie Lynn Miranda will work closely with Center Co-Director, Dr. Rick Auten, and Project Manager, Dr. Pamela Maxson, to ensure that SCEDDBO objectives are achieved. With regular conference calls, the Executive Committee will plan the regular SCEDDBO all-hands meeting and address administrative issues. Monthly SCEDDBO group meetings will be held either via conference calls or in-person.

Dr. Miranda will continue to provide scientific direction and leadership to, as well as coordinating interaction among, the SCEDDBO investigators and staff. The Executive Committee will continue to represent SCEDDBO to the university, the community, the EPA, the NIH, other children's environmental health centers across the United States, and the policy and scientific community interested in children's environmental health more broadly.

Project staff at the University of Michigan will facilitate maintenance and extension of the data warehouse associated with SCEDDBO projects. Staff will research new air pollution and built environment datasets that complement those data already contained within the data warehouse. Staff will also work to ensure all exposure, clinical, and administrative datasets remain updated as new data are released. The GIS analysts at the University of Michigan will geocode the administrative and clinical datasets that SCEDDBO utilizes as additional years and datasets become available. Currently, 19 years of the North Carolina Detailed Birth Records data, covering 1990-2009, have been integrated and standardized to facilitate data linkages and statistical analysis. Staff will continue to expand the environmental data layers available for use through the SCEDDBO data warehouse. These include spatial data on road intensity, criteria air pollutants from the USEPA's AQS system, water quality, environmental releases documented in the Toxics Release Inventory, and housing quality. Support for the development of environmental and social data layers needed to implement the various data analyses required for the research projects and the Community Outreach and Translation Core will be provided by SCEDDBO personnel at the University of Michigan. The GIS analysts at the University of Michigan will also perform geospatial analyses. The GIS team will continue working with investigators in Projects A and B to develop a comprehensive list of environmental spatial data layers of interest, as well as a plan for prioritizing the development of this crucial dataset.

SCEDDBO statisticians at the University of Michigan will conduct both aspatial and spatial analysis to address the coordinated research agendas across SCEDDBO projects. Analyses utilizing the administrative datasets will focus on specific research questions posed under Project A, while additional analyses will utilize the clinical data collected through Project B. The results of these analyses will be disseminated in presentations by Dr. Miranda and University of Michigan project staff, as well as through the peer-reviewed publications they will jointly author.

SCEDDBO BUDGET JUSTIFICATION

This request is for a subaward to the Duke Children's Center, EPA STAR Grant #RD83329301.

Key Personnel

Marie Lynn Miranda, Ph.D., Center Director and Principal Investigator As Principal Investigator for this project, Dr. Miranda brings her extensive experience managing research projects using GIS-based analysis focusing on children's environmental health. Her responsibilities for this project will include overall management of the Center and coordination with all Investigators and Supporting Personnel. She will devote (b) (4), (b) (6) to the project, and (b) (4), is allocated toward this effort.

Statisticians Two statisticians (Sharon Edwards, 100% annual effort, and Rebecca Anthopolos, 50% annual effort) will work closely with the investigators on statistical analysis, including spatial statistical analysis, of data. (b) (4), is allocated toward Ms. Edwards' effort, and (b) (4), is allocated to Ms. Anthopolos' effort.

GIS Analyst/Programmers Two GIS Analysts (Joshua Tootoo, (b) (4), (b) (6) and Benjamin Coakley, (b) (4), (b) (6) will work closely with the investigators on tasks related to translating unmapped data into GIS overlays and creating fully georeferenced databases for all data collected, including the all of the birth record data for North Carolina available for the project. (b) (4), is allocated toward Mr. Tootoo's effort, and (b) (4), is allocated to Mr. Coakley's effort.

Supplies

Funds for supplies are included to cover expenses specifically associated with high resolution poster printing and lamination, and portable computer storage devices for data management and transfer.

Travel

Funds are requested for travel to NIH national meetings of all investigators from Children's Environmental Health Centers, and for travel to scientific meetings where research findings can be shared.

Other Expenses

Funds are requested for retreats and meetings to foster interdisciplinary collaboration and peer training. These meetings will also provide opportunities for collaborators to discuss progress of the specific SCEDDBO components, and identify opportunities for future interdisciplinary work.

Funds are requested for maintenance of the SCEDDBO website, which is an important element for the communication of the Center's goals and research to both the academic community and the general public.

BUDGET INFORMATION - Non-Construction Programs**SECTION A - BUDGET SUMMARY**

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. STAR Program	66.509	\$	\$	\$ 350576	\$	\$
2.						
3.						
4.						
5. Totals		\$	\$	\$	\$	\$

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel			(b) (4)		
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. TOTALS (sum of 6i and 6j)	\$	\$	\$350576	\$	\$
7. Program Income	\$	\$	\$	\$	\$

SECTION C - NON FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. STAR Program				\$
9. 350576				\$
10.				\$
11.				\$
12. Total (SUM OF LINES 8-11)				\$

SECTION D - FORECASTED CASH NEEDS

13. Federal	Total for 1 st Year	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
	\$	\$	\$	\$	\$
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$	\$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	\$	\$	\$	\$
17.				
18.				
19.				
20. TOTAL (sum of lines 16-19)	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges:	22. Indirect Charges: Predetermined @ 55.5%. \$225,451 base; \$125,125 total indirect expense.
23. Remarks:	

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Standard Form 424A (Rev 4-2012) Page 2



US EPA Office of Research and Development

**EXTRAMURAL PACKAGE
ROUTING AND TRANSMITTAL
CHECKLIST** (version 11/14/97)

1. DATE: 03/19/2012	2. LAB/CTR/OFFICE: NCER	3. DIVISION: HRFD
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4. ROUTING CONTROL NUMBERS (enter as needed):

OMIS/ETS: RD83329301	Originating Org Control: RD83329301	ORMA Control:	CU Control:
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5. PACKAGE TYPE (check all that apply):

Contract		Cooperative Agreement		IAG Funds- out		Training/ Fellowship/Internship	
Grant	X	Memo-of-Understanding		IAG Funds-in		IAF :	
New		Mod/Amend of existing	X	No Cost Action	X	Other:	

6. Please indicate why ORMA/SRO/AA concurrence is required:

SRO approval is required to increase the length of the project period beyond five years.

7. APPROVALS:

Name	Purpose	Initials	Date
Originator Richard Callan	concurrence		
EMS Roberto Perez	concurrence		
NCER Chief of Staff Khanna Johnston	concurrence		
¹ Lab/ Ctr /Office Dir. Christopher Zarba	concurrence		
RMSS (RPES/IMTS if necessary)	concurrence		
ORMA Director			
SRO			

8. ENCLOSURES / ATTACHMENTS:

Item	Tab #	Item	Tab #
Decision Memo	1		
Recipient's request for no-cost extension	2		
IFMS history	3		

At HQ, Please return this package to RMSS : RM# 41124 RRB MAILCODE: 8102R PHONE (202) 564-1144 when done.

¹For Packages requiring SRO/AA concurrence, your initials certifies the following:

a) Package has been personally reviewed for compliance with Federal, EPA, & ORD policies. b) Proper extramural instrument has been selected to perform work. c) Does not involve personal services. d) Does not create any conflict of interest (either for Government or non-government participant). e) Does not involve inherently governmental functions (except as permitted by Federal personal supported via IAG). f) Management and other controls are in place. g) Adequate and properly trained staff exist to manage the instrument.

Summary of Project

Laboratory/Office: NCER/ORD	Recipient Organization: Duke University
Vehicle type: Grant (amendment)	Subject of Research: Children's health
Award /Contract No: RD83329301	OMIS/ETS #: RD83329301
Period of Performance: a. Original – 05/01/2007 to 04/30/2012 b. Current – 05/01/2007 to 04/30/2012 c. This Action – 05/01/2007 to 04/30/2014	Project Dollar Amount: a. Total Project Dollars: \$7,735,637.00 b. Amount Spent to-date: \$7,054,575.11 c. Dollar Amt requested in this pkg.: \$0

Review Notes:

A. Link to strategic plan/ GPRA Research Objective:

This jointly funded EPA and National Institute of Environmental Health Sciences (NIEHS) project supports Goal 4 (Healthy Communities and Ecosystems) and Objective 4.4 (Enhance Science and Research) of EPA's Strategic Plan. Specific goals of the Duke University Southern Center on Environmentally Driven Disparities in Birth Outcomes (SCEDDBO) include: 1) to develop and operate an interdisciplinary children's health research center with a focus on understanding how biological, physiological, environmental, and social aspects of vulnerability contribute to health disparities; 2) to enhance research in children's health at Duke by promoting research interactions among programs in biomedicine, environmental health, and the social sciences and establishing an infrastructure to support and extend interdisciplinary research; 3) to develop new methodologies for incorporating innovative statistical analysis into children's environmental health research and policy practice, with a particular emphasis on genetic and spatial analysis; 4) to serve as a technical and educational resource to the local community, region, the nation, and to international agencies in the area of children's health and health disparities; and 5) to translate the results of the Center into direct interventions in clinical care and practice.

B. History of Project:

This grant was awarded to Duke University as a result of a 2005 Science to Achieve Results (STAR) *Request for Applications* for Centers for Children's Environmental Health and Disease Prevention Research (CEHC). This Center has three interrelated hypothesis-based research projects – Research Project A: "Mapping Disparities in Birth Outcomes," Research Project B: "Healthy Pregnancy, Healthy Baby: Studying Racial Disparities in Birth Outcomes" and Research Project C: "Perinatal Environmental Exposure Disparity and Neonatal Respiratory Health." These are supported by three facility cores (Administrative, Geographic Information Systems and Statistical Analysis Core, Community Outreach and Translation Core).

C. Unique aspects of package:

The purpose of this action is to request approval of a deviation from 40 CFR Part 40.125-1 (b) to extend grant RD83329301 with Duke University for two years at no cost. The extension being requested would result in a seven-year duration with new project and budget periods of 05/01/2007 to 4/30/2014. This is expected to be the last extension of this assistance agreement's duration. The extension is necessary to enable the grantee to complete data and statistical analysis and geocoding of data, connect data with the psychosocial, genetic and physical health of mothers and infants, prepare manuscripts for publication, compile results and disseminate information to the community. These are all within the original specific aims as presented in the Center proposal. This study has been progressing satisfactorily and will produce results that are useful to protect public health and environmental quality. The two-year no cost extension will allow for the Center to complete work as presented in the original proposal.

D. Recommended Action:

Approval of a deviation from 40 CFR Part 40.125-1(b) that would allow the project and budget periods for Assistance Agreement RD83329301 to be extended for two years at no cost.

<u>FROM: Project Officer</u> Richard Callan	<u>Signature:</u>	<u>Date:</u>
<u>FROM: EMS</u> Roberto Perez	<u>Signature:</u>	<u>Date:</u>
<u>HQ Comments:</u>		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

MAY 15 2012

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: Request for Deviation from 40 CFR 40.125-1(b) to Extend the Duration of Assistance Agreement RD83329301 Beyond Six Years
Title: Southern Center on Environmentally Driven Disparities in Birth Outcomes
Institution: Duke University
Principal Investigator: Marie Lynn Miranda (b) (6)

FROM: E. Ramona Trovato
Senior Resource Official
Office of Research and Development (8101R)

TO: Denise Polk, Director
National Policy, Training and Compliance Division
Office of Grants and Debarment (3903R)

I. Requirements

The purpose of this memorandum is to request approval for a deviation from 40 CFR Part 40.125-1(b). This deviation will allow grant RD83329301 with Duke University to be extended for two years at no cost. Both the project and budget periods for this assistance agreement are currently 05/01/2007 to 04/30/2012. The extension being requested would result in a seven-year duration with new project and budget periods of 05/01/2007 to 04/30/2014. This is expected to be the only extension of this assistance agreement's duration.

II. Background

This grant was awarded to Duke University as a result of a 2005 Science to Achieve Results (STAR) *Request for Applications* for Centers for Children's Environmental Health and Disease Prevention Research (CEHCs). Specific goals of the Duke University Southern Center on Environmentally Driven Disparities in Birth Outcomes (SCEDDBO) include: 1) to develop and operate an interdisciplinary children's health research center with a focus on understanding how biological, physiological, environmental, and social aspects of vulnerability contribute to health

disparities; 2) to enhance research in children's health at Duke by promoting research interactions among programs in biomedicine, environmental health, and the social sciences and establishing an infrastructure to support and extend interdisciplinary research; 3) to develop new methodologies for incorporating innovative statistical analysis into children's environmental health research and policy practice, with a particular emphasis on genetic and spatial analysis; 4) to serve as a technical and educational resource to the local community, region, the nation, and to international agencies in the area of children's health and health disparities; and 5) to translate the results of the Center into direct interventions in clinical care and practice.

The Southern Center on Environmentally-Driven Disparities in Birth Outcomes consists of 3 projects and 3 Cores. Research Project A is entitled "Mapping Disparities in Birth Outcomes," Research Project B is "Healthy Pregnancy, Healthy Baby: Studying Racial Disparities in Birth Outcomes" and Research Project C is "Perinatal Environmental Exposure Disparity and Neonatal Respiratory Health." The Center is organized around an Administrative Core, with a Geographic Information Systems and Statistical Analysis Core and a Community Outreach and Translation Core. Synergies and complementarities exist across all research projects and cores.

III. Purpose

The Duke University Children's Center is requesting a two-year no-cost extension from May 2012 to April 2014. The extension is necessary to allow the investigators under Project A to obtain 2010 birth record data, to analyze whether changes in the built environment are reflected in changing pregnancy outcomes, complete the geocoding of the data and complete data and statistical analysis. For Project B, the investigators need the additional time to complete data analysis and prepare manuscripts, connect the data with the psychosocial, genetic and physical health of mothers and infants in the clinical project, finish developing and validating statistical methods for genetic, clinical and environmental data interaction analysis, characterize the complex interactions between three categories of factors that might influence pregnancy outcomes (host, social and environmental contributors), compile results and disseminate information to the community. For Project C, additional time is needed for data analysis to determine the window of vulnerability for maternal inhalational exposure to particulate matter and diesel exhaust that may worsen the effects of postnatal ozone on airway hyperreactivity (asthma model) and on lung alveolar structure and to understand the nature of time-specific responses to environmentally relevant concentrations of diesel exhaust. Additional time is also needed to complete analyses on materials collected to assess effects of altered immune response pathways (host susceptibility) on postnatal lung structure and function. All of these analyses for the three projects were part of the original specific aims of the proposal. The Duke University Children's Center will not be able to complete all these analyses within a one-year timeframe so they have requested a two-year extension.

The remaining funds are sufficient to complete the work within the two-year extension period. NCER has determined that this extension is justified and will enable the recipient to complete the work as originally planned. The scope of work of the project has not changed and the project investigators have complied with the terms and conditions of the award agreement. The investigators have made significant progress to date but circumstances beyond their control have precipitated the need for additional time as described above. This study is producing results that will be useful to protect children's and maternal health, prevent adverse birth outcomes, and

better understand social factors as well as gene and environment interactions important in children's health.

IV. Recommendations

1. Approval of a deviation from 40 CFR Part 40.125-1(b) that would allow the project and budget periods for grant RD83329301 to be extended by two years.
2. A new project and budget period for grant RD83329201 of 05/01/2007 to 04/30/2014.

Office of Grants and Debarment Concurrence

Denise Polk, Director
National Policy, Training and Compliance Division
Office of Grants and Debarment (3903R)

Date